

# Roadmap to rebound: how to address rebound effects from resource efficiency policy

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**Table S1.** Classification of the reviewed studies according to desired characteristics in terms of scope, rebound mechanisms, product properties, and indicators, for assessing rebound effects from policy. A cross symbol means that the study considers a particular characteristic in its analysis.

| Study                         | Focus   | Area(s) of policy intervention | Rebound effect size | Key drivers  | Scope                        |   | Rebound mechanisms |                  |                        | Product properties            |               | Indicators       |                     |
|-------------------------------|---|--------------------------------|---------------------|--|------------------------------|---|--------------------|------------------|------------------------|-------------------------------|---------------|------------------|---------------------|
|                               |   |                                |                     |  | Endogenous technical changes | Regional, national or international level | Direct effect      | Indirect effects | Macro-economic effects | Changes in product attributes | Capital costs | Life cycle-based | Multiple indicators |
| (Wood et al., 2017)           | Consumer-oriented diet and clothing policy interventions in Europe.     | Food and clothing              | 25 to 75%           | Direct economic savings and differences in carbon intensity        | X (Expert opinion)           | International                             |                    | x                |                        |                               |               | x                |                     |
| (Freire-González, 2011)       | Energy performance of household energy efficiency policies in Catalonia | Energy                         | 35 to 49%           | Direct economic savings  | X (Empirical evidence)       | Regional                                  | x                  |                  |                        |                               |               |                  |                     |
| (D’Haultfœuille et al., 2014) | Feebate scheme to promote the purchase of less polluting cars in France | Transport                      | 35 to 170%          | Additional travel demand, increased fleet, and manufacturing scale | X (Empirical evidence)       | National                                  | x                  |                  |                        |                               |               |                  |                     |
| (Hennessy and Tol, 2011)      | Tax reform on new car purchases in Ireland                              | Transport                      | 37 to 61%           | Direct economic savings  | X (Empirical evidence)       | National                                  | x                  |                  |                        |                               |               |                  |                     |
| (Davis, 2008)                 | Water and energy consumption of a government-sponsored                  | Water and energy               | NA                  | Direct economic savings and larger capacity                        | X (Empirical evidence)       | Regional                                  | x                  |                  |                        | x                             |               |                  |                     |

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|-----------------------------|---|--------------------------------|---------------------|--|------------------------------|---|--------------------|------------------|------------------------|-------------------------------|---------------|------------------|---------------------|
|                             |   |                                |                     |  | Endogenous technical changes | Regional, national or international level | Direct effect      | Indirect effects | Macro-economic effects | Changes in product attributes | Capital costs | Life cycle-based | Multiple indicators |
|                             | high-efficiency cloth washer giveaway in Bern, Kansas |                                |                     |  |                              |   |                    |                  |                        |                               |               |                  |                     |
| (Davis et al., 2014)        | Large-scale appliance replacement program in Mexico   | Energy                         | 72%                 | Notable economic savings and energy-intensive features of the new appliances | X (Empirical evidence)       | National                                  | x                  |                  |                        | x                             |               |                  |                     |
| (Mizobuchi, 2008)           | Carbon performance of Japanese energy saving policies | Energy                         | 27 to 115%          | Capital costs incurred by households   | X (Empirical evidence)       | National                                  | x                  | x                |                        |                               | x             | x                |                     |
| (Font Vivanco et al., 2015) | EU-level eco-innovation policies                      | Transport                      | -1,500 to 7,189%    | Direct economic savings and differences in impact intensity                  | X (Empirical evidence)       | International                             | x                  | x                |                        | x                             | x             | x                | x                   |
| (Dandres et al., 2012)      | EU-level bioenergy policy scenarios                   | Energy                         | -69 to 45%          | Drop in coal and lignite production costs and increase in exports            | X (Expert opinion)           | International                             |                    |                  | x                      |                               |               | x                | x                   |
| (Barker et al., 2007a)      | Energy efficiency policies and                        | Energy                         | 11 to 25%.          | Reductions in industrial costs and prices in                                 | X (Empirical evidence)       | National                                  | x                  | x                | x                      |                               | x             | x                |                     |

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|------------------------|--|--------------------------------|---------------------|--|------------------------------|---|--------------------|------------------|------------------------|-------------------------------|---------------|------------------|---------------------|
|                        |  |                                |                     |  | Endogenous technical changes | Regional, national or international level | Direct effect      | Indirect effects | Macro-economic effects | Changes in product attributes | Capital costs | Life cycle-based | Multiple indicators |
|                        | programmes in the UK   |                                |                     | energy-intensive industrial sectors and extra energy output being consumed by energy-intensive industries. |                              |   |                    |                  |                        |                               |               |                  |                     |
| (Barker et al., 2007b) | Voluntary climate change agreements from energy-intensive industrial sectors in the UK | Energy                         | 16 to 26%           | Reduction in energy costs for producers  | X (Empirical evidence)       | National                                  | x                  | x                | x                      |                               | x             | x                |                     |

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